

## Stage 1 DBPR

### Conclusion

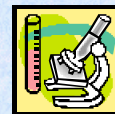
## Summary of Requirements

### Disinfectants:

- Chlorine and Chloramines MRDL = 4.0 mg/L
- Chlorine Dioxide MRDL = 0.8 mg/L

### Byproducts:

- TTHM MCL = 0.080 mg/L
- HAA5 MCL = 0.060 mg/L
- Chlorite MCL = 1.0 mg/L
- Bromate MCL = 0.010 mg/L



### Precursors:

- RAA of TOC removal ratio  $\geq 1.00$
- Treatment Technique – TOC Removal requirements depend on source water characteristics

## Routine Monitoring

	Monitoring Frequency	Monitoring Location
Chlorine & Chloramines	Same as TCR	Same as TCR
TTHM & HAA5	Quarterly/Annually during warmest water month	Location of Maximum Residence Time
DBP Precursors	Monthly	Source Water (alkalinity and TOC) & Treated Water (TOC)

## Reduced Monitoring

	Monitoring Frequency	Monitoring Location
Chlorine & Chloramines	Same as TCR	Same as TCR
TTHM & HAA5	<b>GW &lt; 10,000:</b> 1 per 3-year cycle in warmest water month <b>Subpart H 500 - 9,999 &amp; GW <math>\geq</math> 10,000:</b> annually	Same as routine
DBP Precursors	1 set (3 samples) per Quarter	Same as routine

## Increased Monitoring

	Monitoring Frequency	Monitoring Location
Chlorine & Chloramines	Same as TCR	Same as TCR
TTHM & HAA5	Quarterly	Same as routine
DBP Precursors	Not applicable	Not applicable

## Compliance Determination

Chlorine & Chloramines	RAA of monthly averages calculated each quarter
TTHM & HAA5	RAA of quarterly averages calculated each quarter
DBP Precursors	Depends on criteria used to comply

## Other Considerations

- Changes to disinfection process
- Compliance with LT1ESWTR and other rules
- Monitoring plans
- Additional state requirements
  - State flexibility
- Qualified operators
- Stage 2 DBPR



## Additional Resources

### U.S. EPA's Simple Tools for Effective Performance (STEP) Guide Series:

- *Complying With the New Stage 1 Disinfectants and Disinfection Byproducts Rule: Version A*
- *Complying With the New Stage 1 Disinfectants and Disinfection Byproducts Rule: Version B*



\*These are currently under development

## Additional Resources

### Other Resources:

- *The Stage 1 Disinfectants and Disinfection Byproducts Rule: What Does it Mean to You?* (EPA 816-R-01-014)
- *Microbial and Disinfection Byproduct Rules Simultaneous Compliance Guidance Manual* (EPA 815-R-99-015)
- EPA website: M-DPB Rules: Implementation Activities  
<http://www.epa.gov/safewater/mdbp/implement.html>

## Contact Information

### Safe Drinking Water Hotline:

- 800-426-4791

### Email Trainers:

- [sdwatraining@epa.gov](mailto:sdwatraining@epa.gov) (until October 24, 2003)

### EPA Website:

- <http://www.epa.gov/safewater/>